## Abstract of the Disclosure

An imaging method is for a multi-slice spiral CT scan with 3D back projection. Use is made, for the reconstruction of the absorption value of at least one voxel, of the measured and filtered data that are produced by rays which penetrate the at least one voxel. A CT unit is further used to carry out the method. In the method, the filtering of the data, required for the reconstruction, in the image of the virtual detector is performed in the direction of the projection of spiral segments imaged thereon which are produced by the spiral scanning over a prescribed angular range. The CT unit includes a device for carrying out directional filtering of this type.